Working Discussion Draft
Proposed Interagency Forestry Working Group (IFWG) Work Plan Outline

Task 3: Development of Sustainable Forest Biomass Provisions for Energy Project Development and Greenhouse Gas Reductions

California Energy Commission and
California Department of Forestry and Fire Protection
November 23, 2009

OBJECTIVE

Identify or develop scientific, empirically-based sustainability provisions or guidelines for energy projects using forest woody biomass and forest sector greenhouse gas emissions reduction projects that can be used consistently by all state and federal agencies. The goal is to better coordinate multiple state and federal programs developed to 1) meet greenhouse gas reduction goals for the forest sector and 2) produce sustainable, low-carbon transportation fuels and electricity from forest biomass feedstocks.

PROPOSED APPROACH

The Technical Team for Task 3 will evaluate how existing State and Federal regulatory programs governing forest management assure ecological sustainability in the production and utilization of forest biomass, in order to adopt or develop sustainability definitions and goals for the implementation of the Energy Commission's AB 118 Alternative and Renewable Fuels and Technologies funding program, and for use by other climate change and energy programs involving forest biomass energy production or forest sector carbon accounting. If additional information is needed, the Team will consider use of scientific reviews, workshops and other information sources to address knowledge gaps. The Team may recommend changes to existing regulatory programs to improve their capacity for ensuring sustainable biomass operations. The Team will also evaluate policy options to buffer the impacts of market volatility and forest biomass energy economics, in order to affect an economically stable and sustainably-harvested flow of forest bio-energy from California's forest lands over the planning horizons for AB 32 and AB 118.

The Energy Commission and California Department of Forestry and Fire Protection (CalFire) propose a two-stage process to implement this sustainability work plan. The first stage will

provide a set of deliverables to define the scope of sustainability questions, an evaluation of where we stand with respect to these questions, and what efforts are needed, over a longer decision horizon, to address the fundamental questions raised. This stage would also provide an interim set of sustainability protocols for use in AB 118 implementation. The second stage would develop a two-year plan for ongoing evaluation and monitoring of pilot projects, evaluation of policies to buffer the impacts of market forces, and evaluation of program sustainability at larger spatial and temporal scales.

Information from the IFWG Task 2 assessment of current forest management practices and their capacity to meet greenhouse gas emissions reduction goals from the forestry sector will form a core part of the Task 3 sustainability assessment.

WORK PLAN TO ACCOMPLISH TASK 3

1) Organize the multi-stakeholder IFWG Technical Team for Task 3 and finalize Work Plan.

2) Develop and implement a Public Involvement Process that ensures that IFWG goals are met, while providing stakeholders with the meaningful opportunity to participate in achieving these goals.

3) Build on results of Task 2 to conduct and present respective reviews of state and federal forest practice regulations and planning procedures with respect to sustainable forest biomass utilization (Two Tracks—State and Federal).

    a) Confirm the scope and coverage of existing environmental review and permitting processes as they apply to forest biomass operations.
    b) Identify regulatory coverage provided by other local, state and federal mandates
    c) Conduct a review and evaluation of existing forest regulations and planning procedures with respect to sustainability needs, identifying knowledge gaps, needed amendments, and implementation issues.
    d) Benchmark state and federal regulations and planning procedures against 3rd party sustainable forestry certification programs and appropriate international programs.

4) The Task 3 Technical Team, in collaboration with the scientific community, the University of California, state and federal agencies, work group members and other stakeholders, will conduct or participate in public workshops that 1) examine the issues surrounding the availability, practice and sustainability of woody biomass from California's public and

private forests for energy production (transportation fuels and electricity), and 2) examine how forest management, fuels management, and harvesting prescriptions affect forest carbon balances, public trust resources, fire risk, and energy feedstock supplies. The workshop will consider a range of project objectives, locations, scale and timelines, management objectives, existing and target site conditions, and sustainability protocols.

5) Identify a set of forest sites on public and private lands in California, to clarify and focus key questions regarding sustainable forest biomass utilization. Select sites from the set and organize field tours.

    a) Select sites to illustrate a range of management goals, landscape characteristics, ownerships, prescriptions, and project objectives, and impacts of utilization.
    b) Use site visits to focus and frame proactive discussions of sustainability concerns:
        i) Identify specific sustainability problems or issues.
        ii) Observe and discuss sustainability approaches across projects.

6) Provide funding opportunities through the Energy Commission's AB 118 program for forest biomass projects that integrate sustainable forest biomass harvest prescriptions with the development of low carbon transportation fuels.

7) Fund critical economic, policy and forest science questions affecting sustainable biomass utilization. These questions would include:

    a) Review output from Inventory Task 1 with respect to measuring and accounting for sustained, cumulative carbon "benefits" and "losses".
    b) Review and assess emerging fuel production technologies from forest biomass
    c) Identify risks to the State's stored forest carbon stocks and ecological resources from catastrophic fire— carbon emissions and ecological impacts
    d) Evaluate how alternative forest prescriptions affect carbon sequestration and storage potentials for California forests
    e) Evaluate proposed and existing public policy barriers and incentives to sustainable forest biomass utilization, including:
        i) LCFS pathways and carbon accounting systems.
        ii) AB 32 Carbon trading and crediting mechanisms.
        iii) Public/private incentive mechanisms—reforestation, rural development, others.
        iv) Review federal, state, and local regulatory matrix.
        v) Analyze potential forest biomass supply by end uses and carbon impacts.

vi) Review and assess aggregate policy demands on forest biomass stocks

f) Assess regional forest feedstock acquisition costs, based on site conditions and transportation factors, fuel treatment intensity, and management objectives.

g) Microeconomic analyses of landowner incentives and barriers in biomass utilization.

8) Summarize and evaluate the information developed from the field tours, site assessments, pilot projects, and scientific and economic research conducted in Tasks 3 through 7 in one or more public workshops or symposia.

9) Develop and initiate a set of pilot-project case studies that would integrate new processing technologies, economic and ecological sustainability studies, and scientific and policy research, to demonstrate and evaluate forest biomass sustainability.

10) Based on information derived from the above-described research and pilot projects:

a) Develop sustainability provisions for use in low carbon energy production projects and greenhouse gas reduction projects, and

b) Provide possible recommendations to IFWG on monitoring, carbon accounting, changes to state and federal program implementation, policies and regulations, and other issues.

ASSUMPTIONS FOR DRAFT TASK 3 WORK PLAN

1. Large amounts of fuel have accumulated in California forests that have substantially increased the risk of extreme fires. This fuel accumulation is due to land use changes, past forest management and fire suppression practices, climate change-related shifts in growing conditions, and associated increases in pests and disease. This increased fire risk threatens multiple public trust values associated with forests in California.

2. State and Federal forestry agencies recommend active thinning and other management measures to reduce the fuel load and reduce the risk of high severity fires. This active thinning can potentially create large volumes of woody biomass waste materials.

3. a) The California Forest Practices Act regulates harvest on commercial timberland for any economic use and requires specific management actions to ensure sustained timber yield, to protect wildlife, habitats, water quality, watersheds, soils and other ecosystem values, and to reduce risk of fires, insects and pests. The FPA rulemaking

process is subject to CEQA and projects require a CEQA equivalent review process (similar to an EIR). The regulatory process for non-federal forests in the state is regarded as the nation's most stringent. Most forest biomass operations on non-federal lands, as currently practiced, are subject to permitting under the CA Forest Practices Act. The FPA addresses sustainability, which is a landscape level concept, through Cumulative Effects Analysis and the use of long term, sustained yield planning documents.

b) California federal forest lands are regulated under a large body of legislation, which require management actions to ensure sustained timber yield, protection of wildlife, habitats, water quality, watersheds, soils and other ecosystem values, and reduction of risks from fires, insects and pests. National Forest Plans and proposed projects are subject to the rules for NEPA review, as well as other relevant regulations.

4. State energy policies seek enhanced production of electricity and transportation fuels from waste streams such as woody biomass in order to meet renewable fuel and electricity production goals.

5. Forest management activities have strong potential to create net benefits for the forestry, public trust and energy sectors.

6. Technological, infrastructure, economic, policy and institutional barriers exist that currently constrain development of the State's full forest biomass potential.

7. Energy agencies and stakeholders are concerned about the sustainability of forest woody biomass utilization and seek to ensure that adequate polices and regulations are in place to protect public trust values associated with California forests while ensuring a reliable, sustainably harvested supply of woody biomass material.

8. Domestic and international efforts in developing bio-energy feedstocks indicate that energy market forces have the potential to alter landscapes absent appropriate regulations and controls.